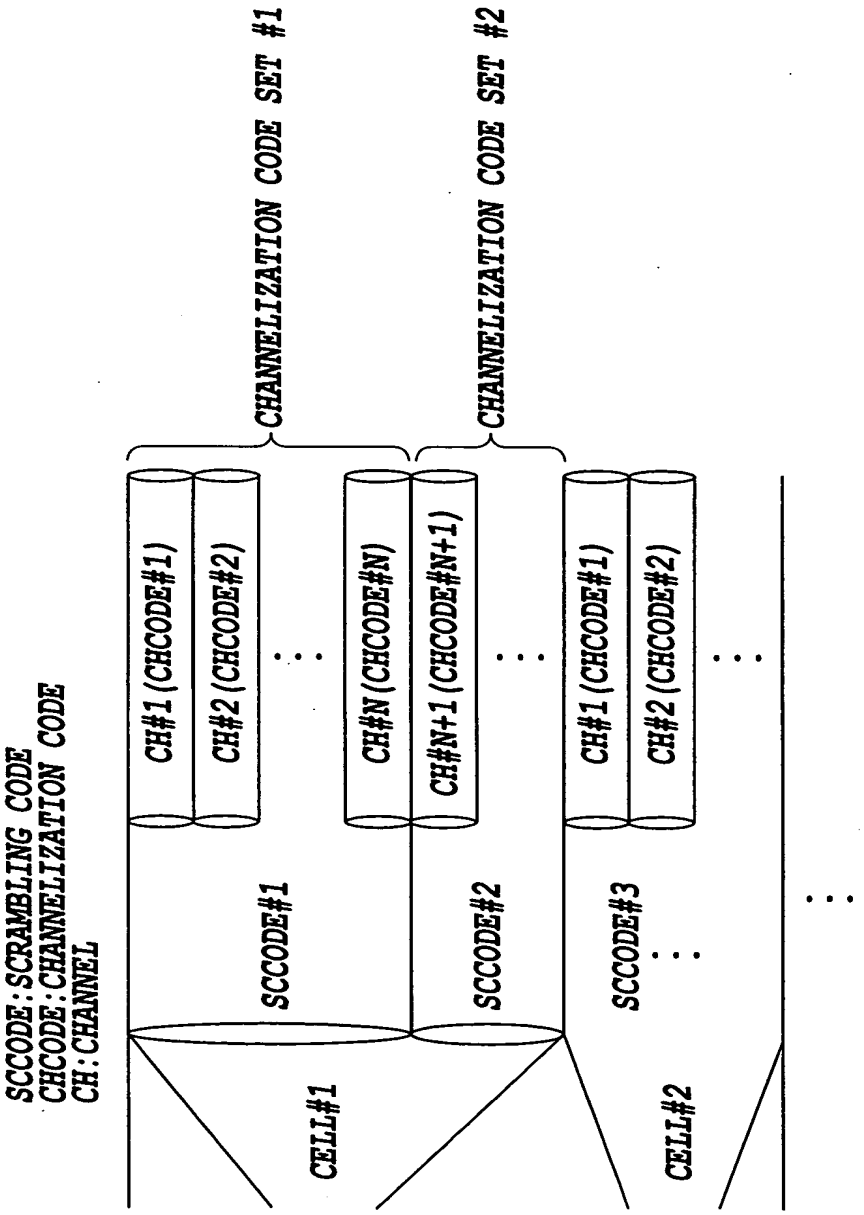
SCCODE:SCRAMBLING CODE
CHCODE:CHANNELIZATION CODE
CH:CHANNEL
CHANNELIZATION CODE SET #1
CHANNELIZATION CODE SET #2
CH#1(CHCODE#1)
CH#2(CHCODE#2)
CH#N(CHCODE#N)
CH#N+1(CHCODE#N+1)
CH#1(CHCODE#1)
CH#2(CHCODE#2)
SCCODE#1
SCCODE#2
SCCODE#3
CELL#1
CELL#2

FIG.1

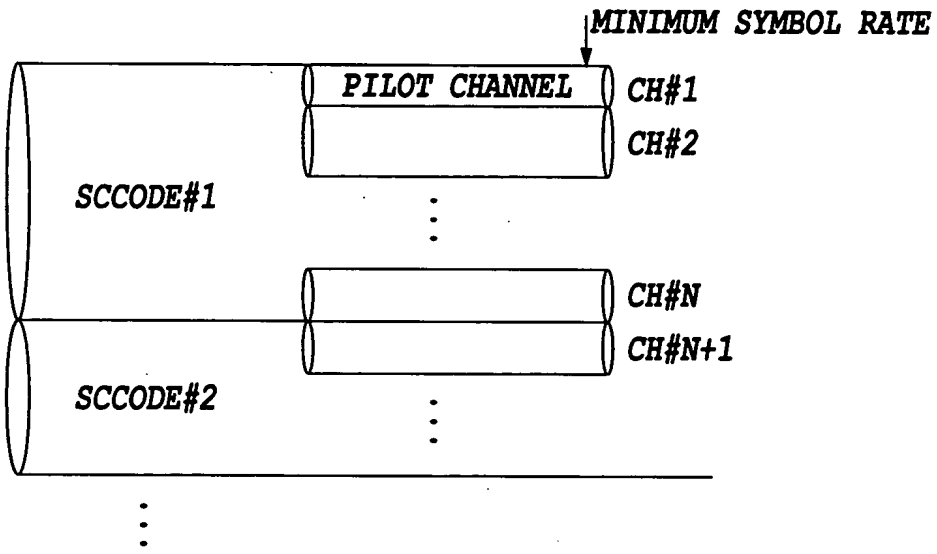

FIG.2
(PRIOR ART)

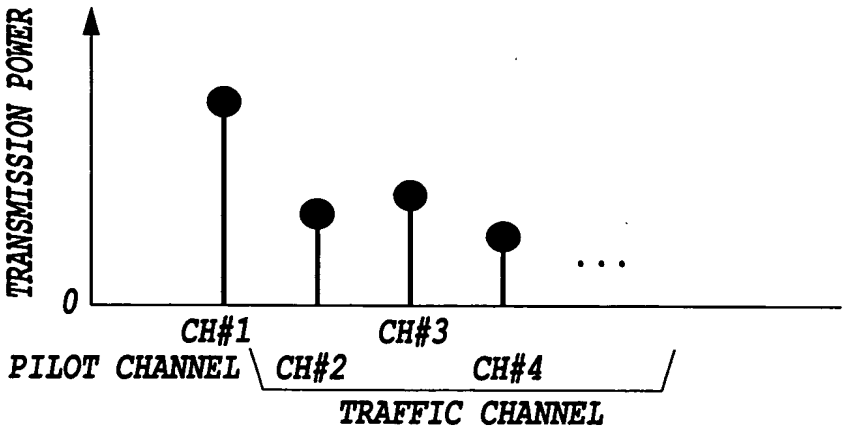

FIG.3
(PRIOR ART)

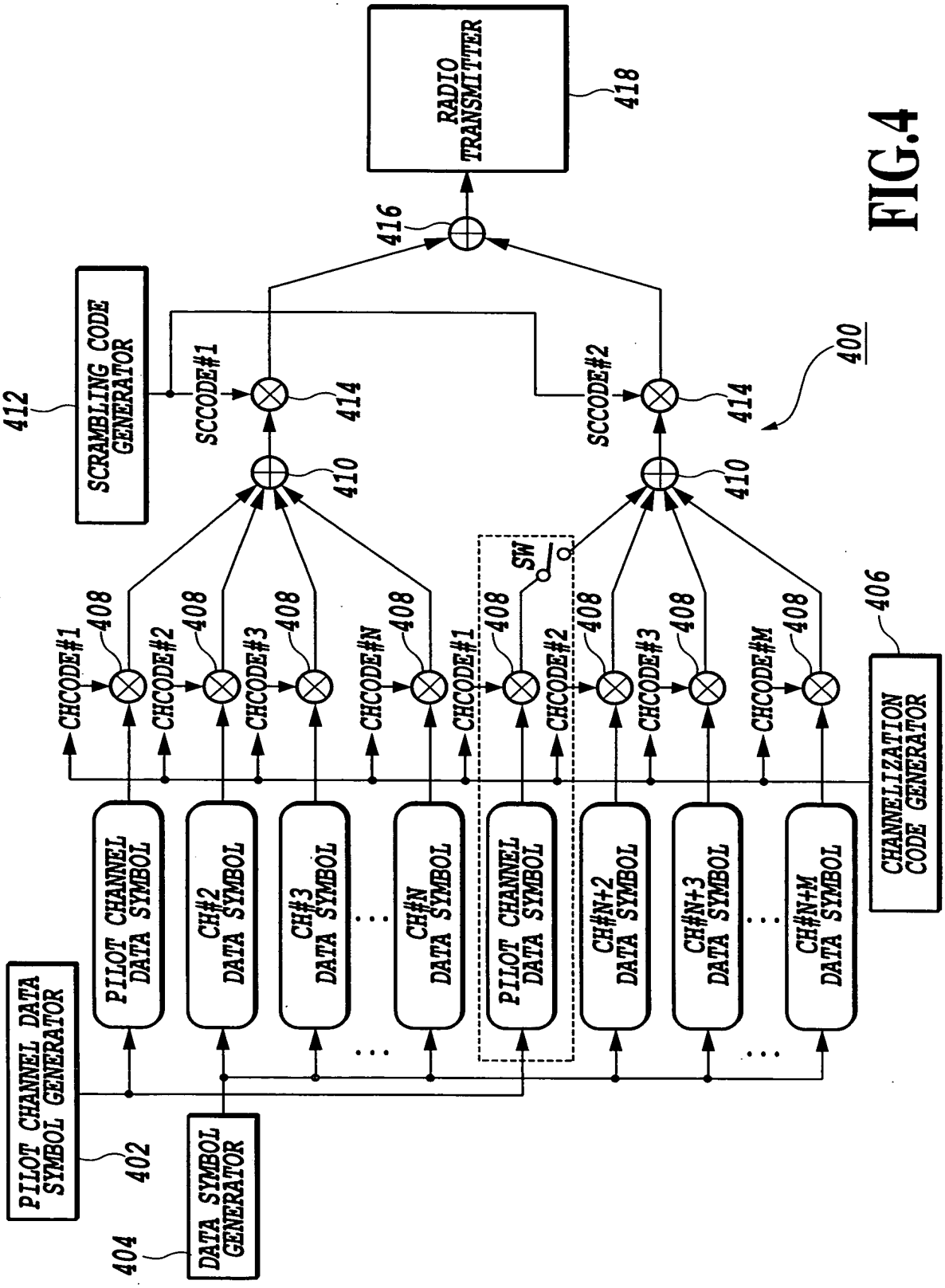
RADIO TRANSMITTER
418
416
SCRAMBLING CODE GENERATOR
412
SCCODE#1
SCCODE#2
414
410
400
SW
CHCODE#1
CHCODE#2
CHCODE#3
CHCODE#N
CHCODE#M
408
406
CHANNELIZATION CODE GENERATOR
PILOT CHANNEL DATA SYMBOL
CH#2 DATA SYMBOL
CH#3 DATA SYMBOL
CH#N DATA SYMBOL
CH#N+2 DATA SYMBOL
CH#N+3 DATA SYMBOL
CH#N+M DATA SYMBOL
PILOT CHANNEL DATA SYMBOL GENERATOR
402
DATA SYMBOL GENERATOR
404

FIG.4

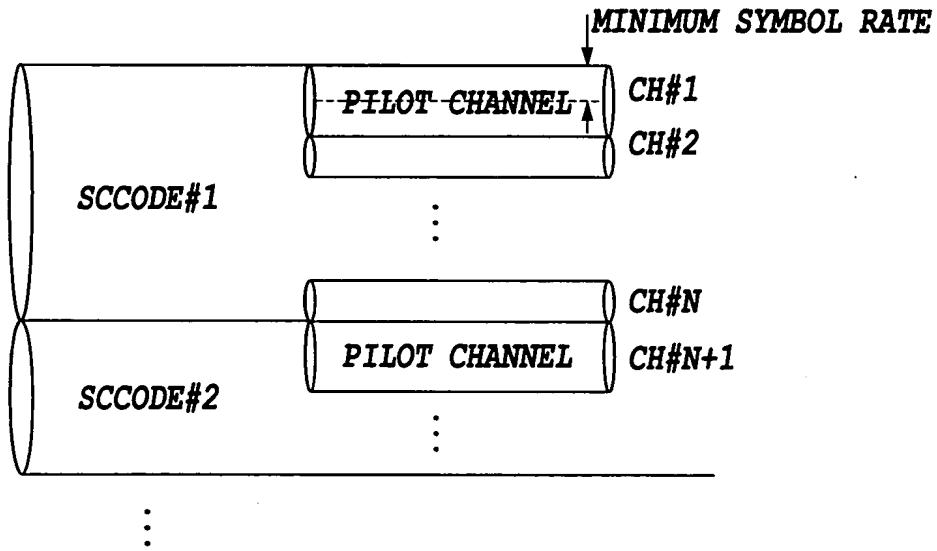
MINIMUM SYMBOL RATE
PILOT CHANNEL
CH#1
CH#2
SCCODE#1
CH#N
PILOT CHANNEL
CH#N+1
SCCODE#2

FIG.5

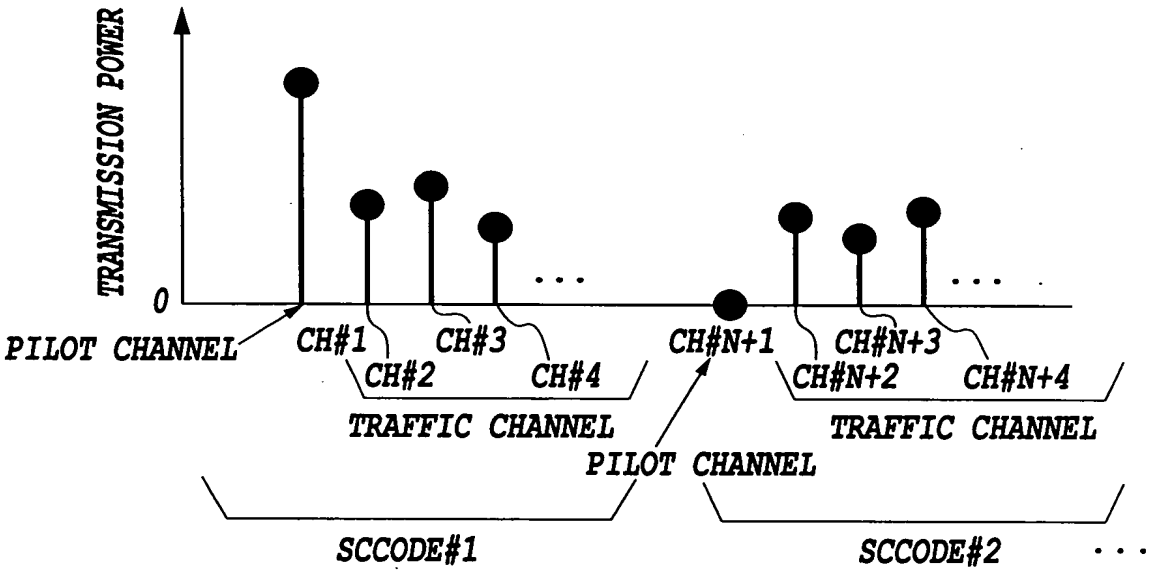
TRANSMISSION POWER
0
PILOT CHANNEL
CH#1
CH#2
CH#3
CH#4
CH#N+1
CH#N+2
CH#N+3
CH#N+4
TRAFFIC CHANNEL
TRAFFIC CHANNEL
PILOT CHANNEL
SCCODE#1
SCCODE#2

FIG.6

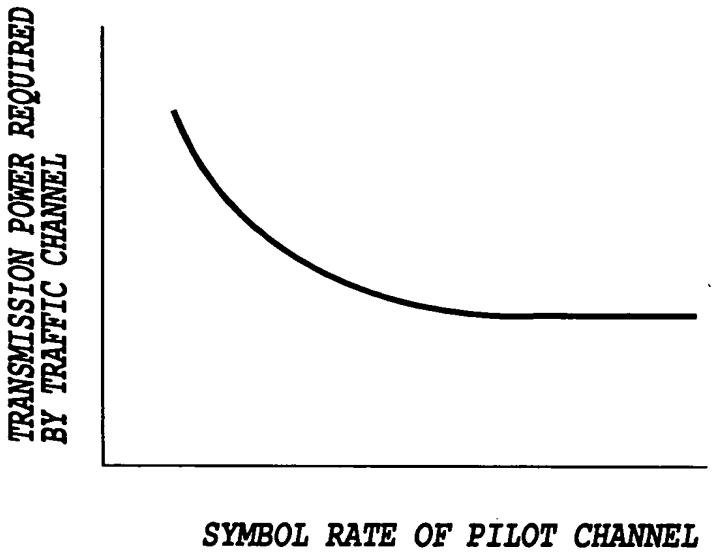
TRANSMISSION POWER REQUIRED BY TRAFFIC CHANNEL
SYMBOL RATE OF PILOT CHANNEL

FIG.7

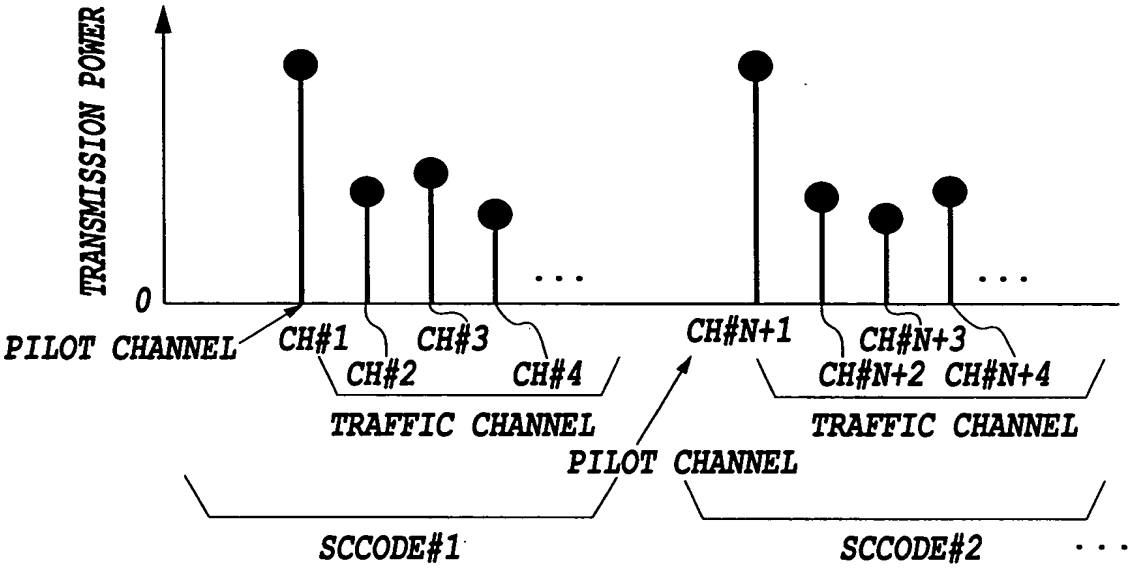
TRANSMISSION POWER
0
PILOT CHANNEL
CH#1
CH#2
CH#3
CH#4
TRAFFIC CHANNEL
CH#N+1
CH#N+2
CH#N+3
CH#N+4
TRAFFIC CHANNEL
PILOT CHANNEL
SCCODE#1
SCCODE#2

FIG.8

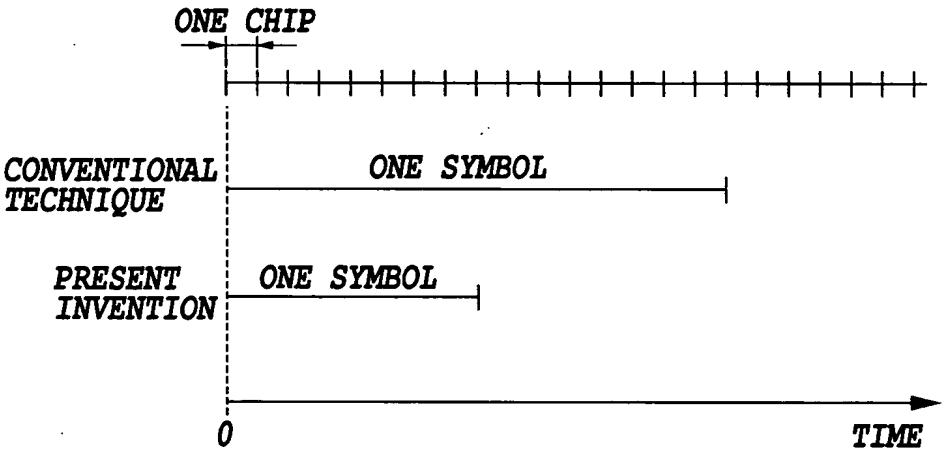
ONE CHIP
CONVENTIONAL TECHNIQUE
ONE SYMBOL
PRESENT INVENTION
ONE SYMBOL
0
TIME

FIG.9

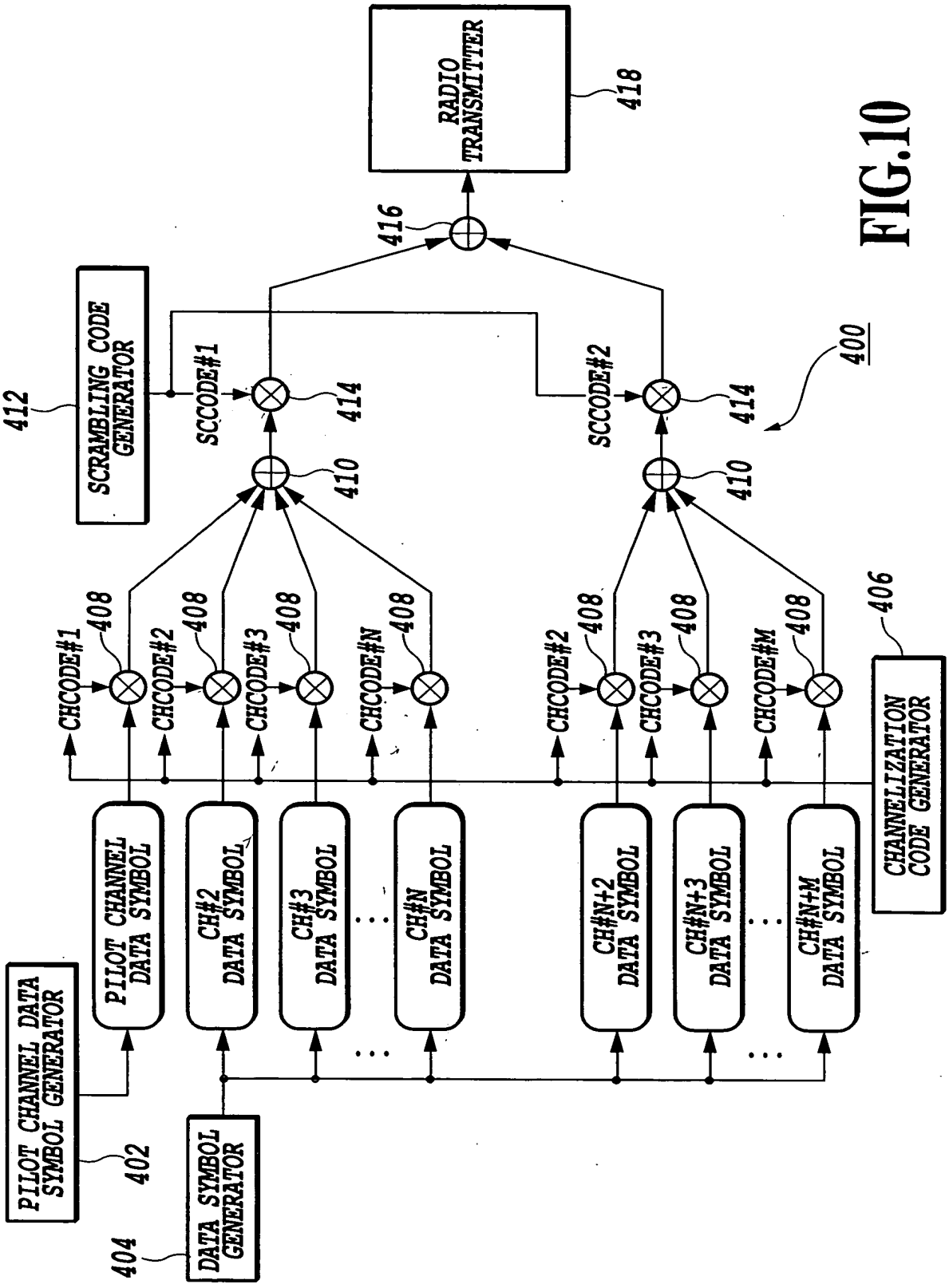
PILOT CHANNEL DATA SYMBOL GENERATOR
402
DATA SYMBOL GENERATOR
404
PILOT CHANNEL DATA SYMBOL
CH#2 DATA SYMBOL
CH#3 DATA SYMBOL
CH#N DATA SYMBOL
CH#N+2 DATA SYMBOL
CH#N+3 DATA SYMBOL
CH#N+M DATA SYMBOL
CHANNELIZATION CODE GENERATOR
406
CHCODE#1
CHCODE#2
CHCODE#3
CHCODE#N
CHCODE#2
CHCODE#3
CHCODE#M
408
SCRAMBLING CODE GENERATOR
412
SCCODE#1
SCCODE#2
414
410
416
RADIO TRANSMITTER
418
400

FIG.10

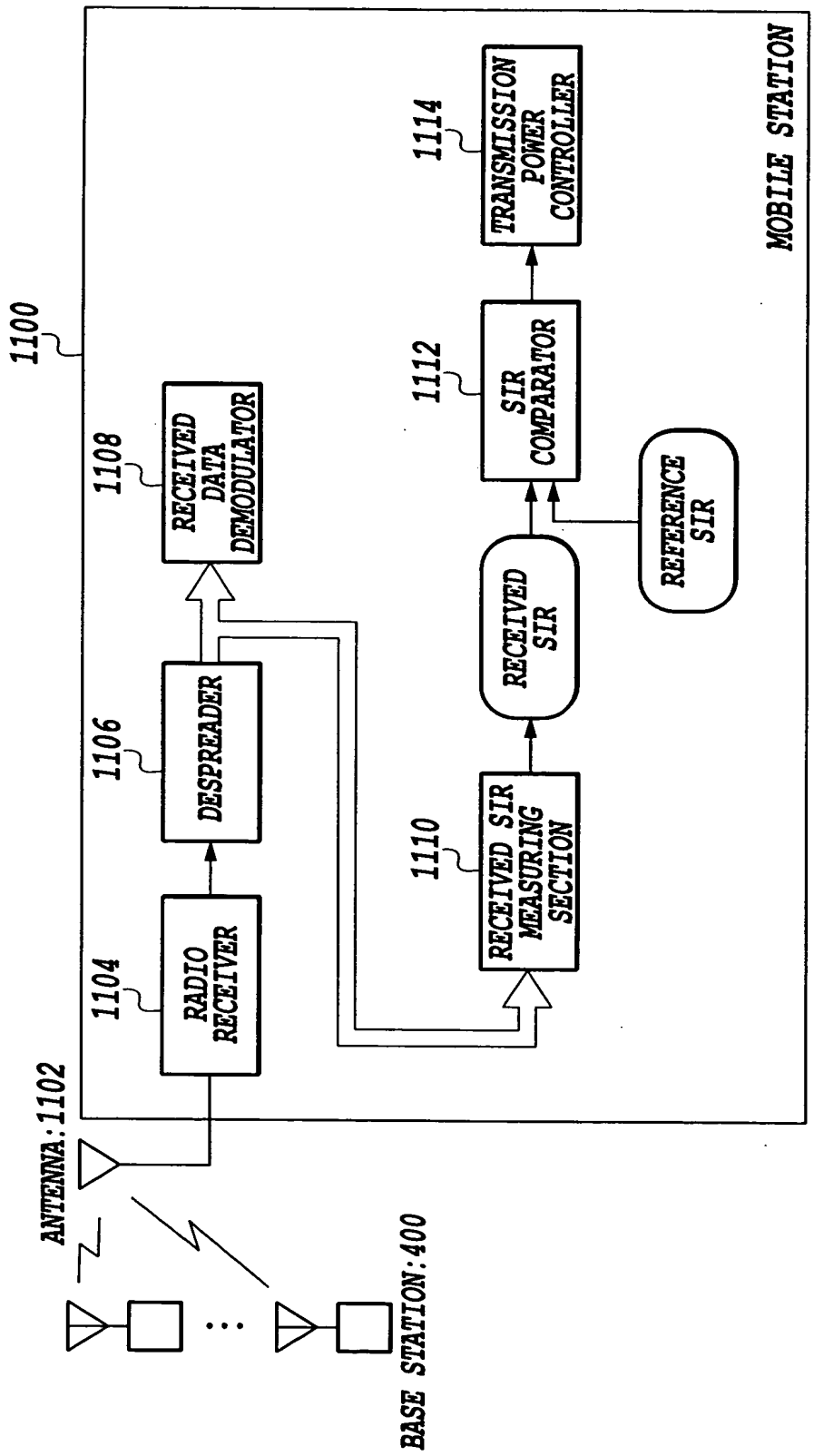
MOBILE STATION
1100
ANTENNA: 1102
BASE STATION: 400
1104
RADIO RECEIVER
1106
DESPREADER
1108
RECEIVED DATA DEMODULATOR
1110
RECEIVED SIR MEASURING SECTION
RECEIVED SIR
1112
SIR COMPARATOR
REFERENCE SIR
1114
TRANSMISSION POWER CONTROLLER

FIG.11

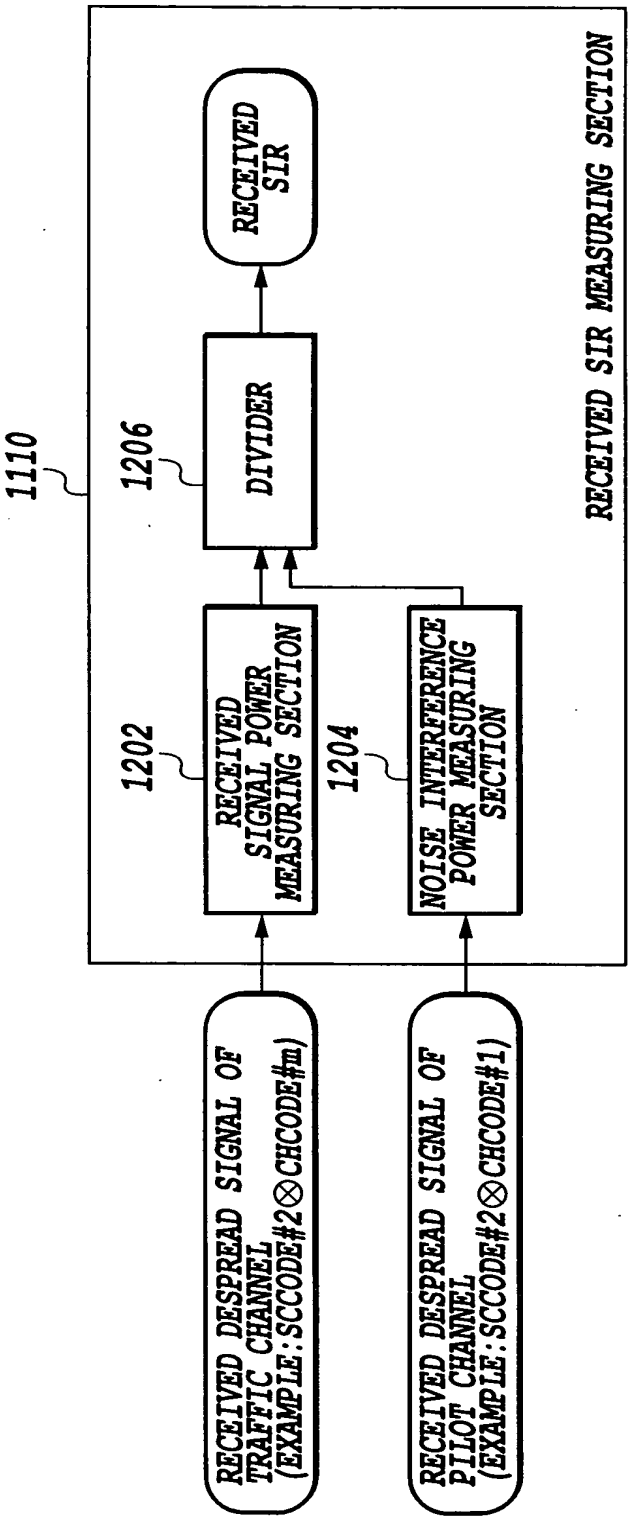
RECEIVED DESPREAD SIGNAL OF TRAFFIC CHANNEL (EXAMPLE:SCCODE#2⊗CHCODE#m)
RECEIVED DESPREAD SIGNAL OF PILOT CHANNEL (EXAMPLE:SCCODE#2⊗CHCODE#1)
1110
RECEIVED SIR MEASURING SECTION
1202
RECEIVED SIGNAL POWER MEASURING SECTION
1204
NOISE INTERFERENCE POWER MEASURING SECTION
1206
DIVIDER
RECEIVED SIR

FIG.12